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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,186	11/18/2003	Hartmut Koerner	13911-098001 / 2003P00820	6226

64280	7590	11/30/2006

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EXAMINER
MORRISON, JAY A

ART UNIT	PAPER NUMBER
2168	

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>11 September 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>18 November 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Remarks

1.   Claims 1-20 are pending.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

3.   Claims 1-2,5-7,9,11,13-18,20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over King et al. ('King' hereinafter) (Patent Number 5,745,904) in view of

Benson (Publication Number 2004/0225675 A1).

        As per claim 1, King teaches

        A database system embodied in computer-readable media, the database system

comprising: (see abstract and background)

        "a database" (database, column 4, line 60 through column 5, line 10);

        "one or more application tools, each of the tools being configured to access data

objects from the database" (user interface displays data from database, column 4, line

60 through column 5, line 10);

        "a data buffer configured to store a copy of the data objects accessed from the

database" (table buffer stores records, column 5, lines 25-42);

        King does not explicitly indicate "and a delta buffer configured to store a delta

record, wherein the delta record characterizes a difference between the data objects

and a modified version of the data objects, the modified version being a result of a

change made by the one or more application tools to the data objects accessed from

the database".

        However, Benson discloses "and a delta buffer configured to store a delta record,

wherein the delta record characterizes a difference between the data objects and a

modified version of the data objects, the modified version being a result of a change

made by the one or more application tools to the data objects accessed from the

database" (individual record deltas stored in the buffer, paragraphs [0040],[0053]).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine King and Benson because using the steps of "and a

delta buffer configured to store a delta record, wherein the delta record characterizes a

difference between the data objects and a modified version of the data objects, the

modified version being a result of a change made by the one or more application tools

to the data objects accessed from the database" would have given those skilled in the

art the tools to improve the invention by enabling synchronization of data sources. This

gives the user the advantage of ensuring the integrity of data.

As per claim 2, King teaches

"the delta buffer is configured to generate a cumulative delta record" (column 5,

lines 25-56).

As per claim 5, King teaches

"the delta buffer includes at least one delta record and each delta record has a

corresponding request identifier, and wherein the request identifier is usable by a data

object to represent the one or more delta records that have been used to update a data

object" (column 5, lines 42-56).

As per claim 6, King teaches

"the delta buffer includes at least one delta record and the database system is configured to store the at least one delta record with data in the database" (column 5, lines 25-56).

As per claim 7, <u>King</u> teaches

"the data buffer and the delta buffer are parts of a system memory of a computer system" (column 6, lines 25-45; figure 2, items 68-69).

As per claim 9, <u>King</u> teaches

A computer-implemented method comprising: (see abstract and background)

"reading data from a database" (displaying data from database, column 4, line 60 through column 5, line 10);

"storing a data object in a data buffer, wherein the data object includes the data read from the database" (table buffer stores records, column 5, lines 25-42);

"accessing the data object from the data buffer with an application tool" (look aside logic, column 6, lines 11-25);

<u>King</u> does not explicitly indicate "storing, in a delta buffer, a delta record characterizing a difference between the data object and a modified version of the data object, the modified version being a result of a change to the data object made by the application tool; and updating the data object in the data buffer with the delta record".

However, <u>Benson</u> discloses "storing, in a delta buffer, a delta record characterizing a difference between the data object and a modified version of the data

object, the modified version being a result of a change to the data object made by the application tool; and updating the data object in the data buffer with the delta record" (individual record deltas stored in the buffer, paragraphs [0040],[0053]; rename a record residing in buffer, paragraph [0062]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine King and Benson because using the steps of "storing, in a delta buffer, a delta record characterizing a difference between the data object and a modified version of the data object, the modified version being a result of a change to the data object made by the application tool; and updating the data object in the data buffer with the delta record" would have given those skilled in the art the tools to improve the invention by enabling synchronization of data sources. This gives the user the advantage of ensuring the integrity of data.

As per claim 11, King teaches

"storing the delta buffer in the database, wherein storing the delta buffer in the database includes integrating the one or more delta records in the delta buffer with the corresponding data in the database" (commit buffered changes, column 2, lines 22-35).

As per claim 13, King teaches

"associating the delta record with a request identifier, wherein the request identifier is usable by a data object to represent the one or more delta records that have been used to update a data object" (column 5, lines 42-56).

As per claim 14, <u>King</u> teaches

An integrated business planning and reporting platform embodied in computer-readable media, the platform comprising: (see abstract and background)

"a database storing data" (modify database table, column 4, line 60 through column 5, line 10);

"a data buffer configured to store one or more data objects, wherein the at least one data object includes data read from the database" (table buffer stores records, column 5, lines 25-42);

"a reporting tool for reporting operations based on one or more data objects accessed from the data buffer" (retrieves record with table buffer record identifier from the table buffer, column 8, line 60 through column 9, line 18);

"a planning tool, integrated with the reporting tool, for planning operations based on the one or more data objects accessed from the data buffer" (index function, column 8, line 60 through column 9, line 18);

<u>King</u> does not explicitly indicate "and a delta buffer configured to store a delta record characterizes a difference between the data objects and a modified version of the data objects, the modified version being a result of a change made to the one or more data objects by the reporting tool and/or planning tool".

However, <u>Benson</u> discloses "and a delta buffer configured to store a delta record characterizes a difference between the data objects and a modified version of the data objects, the modified version being a result of a change made to the one or more data

objects by the reporting tool and/or planning tool" (individual record deltas stored in the buffer, paragraphs [0040],[0053]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine King and Benson because using the steps of "and a delta buffer configured to store a delta record characterizes a difference between the data objects and a modified version of the data objects, the modified version being a result of a change made to the one or more data objects by the reporting tool and/or planning tool" would have given those skilled in the art the tools to improve the invention by enabling synchronization of data sources. This gives the user the advantage of ensuring the integrity of data.

As per claim 15, King teaches

"a server program configured to manage the data buffer" (column 5, line 25 through column 6, line 25).

As per claim 16, King teaches

"a server program configured to manage the delta buffer" (column 5, line 25 through column 6, line 25).

As per claim 17, King teaches

"the reporting tool and/or planning tool generates the delta record" (column 5, line 25 through column 6, line 25).

As per claim 18, <u>King</u> teaches

"the delta buffer stores at least one delta record and each delta record

corresponds to a request identifier, wherein the request identifier represents at least one

delta record that has been used to update a data object" (column 5, lines 42-56).

As per claim 20, <u>King</u> teaches

"the delta buffer includes at least one delta record and the database system is

configured to store the at least one delta record in the database, wherein storing the at

least one delta record includes integrating the at least one delta record with data in the

database" (commit buffered changes, column 2, lines 22-35).

4.   Claims 3,4,12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

<u>King et al.</u> ('<u>King</u>' hereinafter) (Patent Number 5,745,904) in view of <u>Benson</u> (Publication

Number 2004/0225675 A1), and further in view of <u>Cras et al.</u> ('<u>Cras</u>' hereinafter) (Patent

Number 6,831,668).

As per claim 3,

Neither <u>King</u> nor <u>Benson</u> explicitly indicate "the database is a multidimensional

database."

However, <u>Cras</u> discloses "the database is a multidimensional database" (column

4, lines 3-21).

It would have been obvious to one of ordinary skill in the art to combine <u>King</u>, <u>Benson</u> and <u>Cras</u> because using the steps of "the database is a multidimensional database" would have given those skilled in the art the tools to improve the invention by dividing the database into more precise categories. This gives the user the advantage of being able to access the database along different dimensions.

As per claim 4,

Neither <u>King</u> nor <u>Benson</u> explicitly indicate "one of the one or more application tools is an online analytical processing (OLAP) tool."

However, <u>Cras</u> discloses "one of the one or more application tools is an online analytical processing (OLAP) tool" (column 6, lines 18-26).

It would have been obvious to one of ordinary skill in the art to combine <u>King</u>, <u>Benson</u> and <u>Cras</u> because using the steps of "one of the one or more application tools is an online analytical processing (OLAP) tool" would have given those skilled in the art the tools to improve the invention by providing more powerful analytical tools. This gives the user the advantage of having different views of the data available.

As per claim 12,

This claim is rejected on grounds corresponding to the arguments given above for rejected claim 3 and is similarly rejected.

5.   Claims 8,10,19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

King et al. ('King' hereinafter) (Patent Number 5,745,904) in view of Benson (Publication

Number 2004/0225675 A1), and further in view of Potts, Jr. et al. ('Potts' hereinafter)

(Patent Number 6,516,339).

        As per claim 8,

        . Neither King nor Benson explicitly indicate "the delta buffer is configured to

compress two or more delta records to generate a cumulative delta record".

        ·   However, Potts discloses "the delta buffer is configured to compress two or more

delta records to generate a cumulative delta record" (column 7, lines 39-65).

        It would have been obvious to one of ordinary skill in the art to combine King,

Benson and Potts because using the steps of "the delta buffer is configured to

compress two or more delta records to generate a cumulative delta record" would have

given those skilled in the art the tools to improve the invention by reducing the amount

of memory used for storing deltas if the number of deltas becomes large. This gives the

user the advantage of being able to work on computers with limited abilities and

resources.   ·

        As per claim 10,

        Neither King nor Benson explicitly indicate "compressing the delta buffer, wherein

compressing the delta buffer includes generating a cumulative delta record".

However, Potts discloses "compressing the delta buffer, wherein compressing the delta buffer includes generating a cumulative delta record" (column 7, lines 39-65).

It would have been obvious to one of ordinary skill in the art to combine King, Benson and Potts because using the steps of "compressing the delta buffer, wherein compressing the delta buffer includes generating a cumulative delta record" would have given those skilled in the art the tools to improve the invention by reducing the amount of memory used for storing deltas if the number of deltas becomes large. This gives the user the advantage of being able to work on computers with limited abilities and resources.

As per claim 19,

This claim is rejected on grounds corresponding to the arguments given above for rejected claim 8 and is similarly rejected.

Response to Arguments

6.   Regarding Applicant's arguments pertaining to the 35 USC § 102 and 103 rejections with respect to claims 1-20, these arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

The prior art made of record, listed on form PTO-892, and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay A. Morrison whose telephone number is (571) 272-7112. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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